remains in the slag, and 88 per cent, to 90 per cent, on the other hand are rendered useful. One will now certainly object that this result is not brilliant, that the blast furnace could have utilised it much better, in that nothing or as good as nothing would have been lost. For testing this contention, one again does best to regard the blastfurnace and converting apparatus as a whole, and establish a balance as to the amounts of iron which take part in the entire process (i.e. from winning the pig iron up to the completion of its conversion). Assuming that absolutely nothing goes to loss in the blast furnace, so the whole of the iron present in the ore reaches the conversion apparatus.

In the example of the basic Bessemer process under consideration, the pig iron employed contained T8 per cent. P, 0-5 per cent. Si, 2 per cent. Mn, and 4 per cent. C, and (by difference) 91*7 per cent. Fe. Thus one brought into employment per metric ton 917 kilogrammes Fe, and obtained therefrom 880 kilogrammes steel, having thus lost 87 kilo-
8 700 grammes Fe., or suffered a loss of iron of - =4 per cent, of
the total handled.

In the open-hearth furnace, however, one employed por metric ton of pig iron 917 kilogrammes Fe, one introduced in 262*4 kilogrammes iron peroxide, 188*7 kilogrammes Fe, thus having handled 1,110*7 kilogrammes Fe, and produced 1,093*4 kilogrammes steel. The loss thus amounts to 7*3 kilogrammes Fe, or, say, 0*7 per cent, of the total quantity of iron employed in working.

By working up Bessemer pig iron, the metallic iron loss fixes itself at 2*6 per cent, for the converter, and only 1*1 per cent, for the basic open-hearth furnace.

It is, therefore, beyond doubt that utilisation of the identical materials is the more complete in the opon-hoarth furnace.

These excellent results, permit it to appear justified to call attention anew to the advantages of the basic open-hearth process. In order to be able to utilise them to the full, of course, the theoretical side of the process must bo duly valued.